



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,754	06/20/2005	Yasutomo Okajima	YAMAP0962US	3153

43076 7590 02/12/2009
MARK D. SARALINO (GENERAL)
RENNER, OTTO, BOISSELLE & SKLAR, LLP
1621 EUCLID AVENUE, NINETEENTH FLOOR
CLEVELAND, OH 44115-2191

EXAMINER

LEE, LAURA MICHELLE

ART UNIT	PAPER NUMBER
----------	--------------

3724

MAIL DATE	DELIVERY MODE
-----------	---------------

02/12/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/519,754	Applicant(s) OKAJIMA ET AL.	
	Examiner LAURA M. LEE	Art Unit 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-18 and 20-29 is/are pending in the application.
- 4a) Of the above claim(s) 3,8-18,20-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/19/2008 have been fully considered but they are not persuasive. The applicant contends that the rejection of Masakazu in view of Fisher is not obvious and does not arrive at the claimed invention. It is first noted that the claim limitations do not necessitate that the two cutting systems are on a top and bottom side of the substrate, rather the modification of Masakazu in view of Fisher would be capable of cutting two substrates (bonded together at their side edges), where each of the cutting systems were on the "top" side of the substrates. The bonding of the substrates would form one long planar sheet, each different substrate being positionable under a singular cutting system as similarly shown by Fisher. Furthermore although the limitation of the back up portion was first construed as reading on being movably rotatable, it is also vertically displaceable via the pressure setting mechanism 39 and the pistons 40.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3724

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masakazu (JP 10-338534) in view of Fisher (U.S. Patent 4,210,052). Masakazu discloses a cutting system capable of cutting a bonded brittle material (i.e. glass) formed by bonding a first brittle material and a second brittle material into a plurality of cut substrates (i.e. the materials are bonded edge to edge), the system for cutting a substrate of the bonded substrate comprising:

a cutting apparatus (30) comprising:

a first cutting device (42/43/50) located so as to face the first substrate,

wherein the first cutting device (42/43/50) comprises a scribing portion (43) in which first scribing means applied pressure on the first substrate to form a scribing line on the first substrate,

the first cutting device further comprises a back up portion (42) which moves perpendicularly (via pressure setting mechanism 39 and pistons 40) to a surface of the first substrate to apply pressure against a surface of the first substrate, in correspondence with the portion to be scribed, and a breaking portion (50) for cutting the first substrate along the scribing line formed on the first substrate.

Masakazu does not disclose a second cutting device. However, attention is directed to the Fisher reference that discloses an alternative glass scoring device. However instead of using one cutting system, Fisher discloses alternatively using a plurality of cutting systems (12) produce uniform score lines in sheet of glass material. second cutting system along with the first cutting system. It similarly would have been obvious to one having ordinary skill in the art at the time of the invention to have equipped

Art Unit: 3724

Masakazu with a secondary adjacent cutting system as shown by Fisher to be able to make twice as many scoring lines in the same time as it use to make one scoring line.

It is also noted that it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Therefore, the modified device of Masakazu discloses a first and second cutting system capable of cutting a bonded substrate, that is bonded edge to edge, with a second cutting device located so as to face the second substrate (facing in a direction in the plane of the glass substrate); the second cutting device comprises a scribing portion (43') in which the second scribing means is capable of applying pressure on the second substrate to form a scribing line on the second substrate, and the first cutting device further comprises a back up portion (42) which faces the second scribing means (43') (facing in a direction in the plane of the glass substrate), when the second scribing means (43') of the scribing portion of the second cutting device scribes the second substrate; the second cutting device further comprises a back up portion (42') which faces the first scribing means and which moves perpendicularly (via pressure setting mechanism 39 and pistons 40) to a surface of the first substrate to apply pressure against a surface of the second substrate when the first scribing means (14) of the scribing portion of the first cutting device scribes the first substrate, in correspondence with the portion to be scribed, and a breaking portion ('50) for cutting the second substrate along the scribing line formed on the second substrate. It is noted that as the back up portions (42/42') are always in contact with the substrate, that they are always

Art Unit: 3724

exerting a pressure on the substrate, such that when either the first or second cutting devices are engaging the respective substrates, the back up portions are applying a respective pressure.

4. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masakazu (JP 10-338534) in view of Fisher (U.S. Patent 4,210,052) and in further view of Shigeyuki et al (JP 2001-261357). The modified device of Masakazu does not disclose a substrate carrying apparatus, which sequentially positions lines to be cut of the bonded substrate with respect to the cutting apparatus. However, attention is directed to the Shigeyuki device that discloses sheet glass apparatus with a glass-cutting and breaking machine, 14, with an absorption transfer device, 12. Shigeyuki discloses that the transfer device aids in the movement of the workpiece from workstation to workstation without needing to manually manipulate the workpiece and to improve the efficiency of working with the workpiece. It similarly would have been obvious to utilize a conveyance system as taught by Shigeyuki with the apparatus of Masakazu to aid the user in transporting the workpiece to and from the cutting apparatus.

In regards to claim 5, the modified device of Masakazu discloses wherein the substrate carrying apparatus (12) comprises a plurality of tables (pads, 28; see Figures 1 and 3).

In regards to claim 6, the modified device of Masakazu discloses wherein the tables (28) are independently movable (removable).

In regards to claim 7, the modified device of Masakazu discloses wherein the tables comprise adsorption holes for adsorbing the bonded substrate (connected to suction pump; not illustrated; paragraph [0013]).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAURA M. LEE whose telephone number is (571)272-8339. The examiner can normally be reached on Monday through Friday, 8:00am to 4:30pm.

Art Unit: 3724

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Laura M Lee/

Examiner, Art Unit 3724

02/04/2009

/Boyer D. Ashley/

Supervisory Patent Examiner, Art Unit 3724